

CLAIMS

- Sub. A*
1. An apparatus for treating waste water,
comprising:
 a packed bed of solid catalyst and/or solid adsorbent;
and
 (1) a pressure layer having an ability of following up
a deformation or a movement of a surface of the packed bed,
the pressure layer being provided on the packed bed, or
 (2) a layer for dispersing and mitigating an upward
stream of waste water and/or gas, the layer being provided
under the packed bed.
 2. An apparatus for treating waste water,
comprising:
 a packed bed of solid catalyst and/or solid adsorbent;
and
 a water-permeable pressure layer having an ability
of following up a deformation of a surface of the packed bed,
wherein the water-permeable pressure layer is
provided on the packed bed.
 3. The apparatus according to claim 2, further
comprising a partition for dividing the boundary area
between an upper part of the packed bed and the water-

Surf Areas

permeable pressure layer into a plurality of segments in a vertical direction.

4. The apparatus according to claim 2 or 3, wherein the water-permeable pressure layer has a void percentage of 20 to 70 volume percent.

5. The apparatus according to any one of claims 2 to 4, wherein the water-permeable pressure layer has a height of 30 to 1000mm.

6. The apparatus according to any one of claims 2 to 5, wherein the water-permeable pressure layer is constituted of a substance having a plurality of metallic or ceramics particles.

7. The apparatus according to claim 6, wherein the particle has an average particle diameter of 3 to 30mm.

8. The apparatus according to any one of claims 3 to 7, wherein the respective segments formed by the vertical partition have a cross-sectional area in a horizontal direction of 50 to 5000cm².

9. The apparatus according to any one of claims 3

Claim 8
to 8, wherein the partition has a height of 20 to 300cm in a vertical direction.

10. The apparatus according to any one of claims 2 to 9, wherein a layer for dispersing and mitigating an upward stream of waste water and/or gas is provided under the packed bed.

11. The apparatus according to claim 10, wherein the dispersing and mitigating layer has a height of 10 to 300mm.

12. The apparatus according to claim 10 or 11, wherein the dispersing and mitigating layer has a void percentage of 20 to 99 volume percentage.

13. The apparatus according to any one of claims 10 to 12, wherein the dispersing and mitigating layer includes a substance having a plurality of metallic or ceramics particles.

14. The apparatus according to claim 13, wherein the metallic or ceramics particle has an average particle diameter of 3 to 30mm.

Int'l A2 crd.

15. An apparatus for treating waste water,
comprising a packed bed of solid catalyst and/or solid
adsorbent; and
a layer for dispersing and mitigating an upstream of
waste water and/or gas,

wherein the dispersing and mitigating layer is
provided under the packed bed.

Int'l A2 crd.

16. The apparatus according to claim 15, wherein
the dispersing and mitigating layer has a height of 10 to
300mm.

Int'l A3

17. The apparatus according to claim 15 or 16,
wherein the dispersing and mitigating layer has a void
percentage of 20 to 99 volume percentage.

18. The apparatus according to any one of claims
15 to 17, wherein the dispersing and mitigating layer is
constituted by a substance having a plurality of metallic or
ceramics particles.

19. The apparatus according to claim 18, wherein
the metallic or ceramics particle has an average particle
diameter of 3 to 30mm.

20. The apparatus according to any one of claims 1
to 19, used in a wet-oxidation treatment.

Add A³ ↗
add B⁶ ↗

Add C³ ↗

REDACTED

Add D⁴ ↗
Add E⁵ ↗